

AMENDMENTS TO THE CLAIMS

Please replace the prior listing of claims with the following:

1. (Withdrawn) A method for material handling, comprising:
receiving input, with an engine, comprising up to a plurality of lots to be processed by a process machine;
after receiving input, determining, with the engine, which of the plurality of lots are remotely located from process machine; and
assigning, with the engine, at least one of the remotely located lots to a selected one of up to a plurality of stockers, each stocker capable of storing a plurality of lots, said assigning based on stocker state.
2. (Withdrawn) The method of claim 1, wherein determining which of the lots are remotely located from the process machine includes deselecting those remotely located lots which are
assigned to a stocker which is proximally located to the process machine; or
in transit to a selected one of the process machine and a stocker which is proximally located to the process machine.
3. (Withdrawn) The method of claim 1, wherein the process machine comprises at least a selected one of a plurality of machines which perform substantially the same process.
4. (Withdrawn) The method of claim 1, further comprising:
providing a manual order queue for a process machine, said manual order queue to receive user input through a user interface.
5. (Withdrawn) The method of claim 1, further comprising:
communicating at least one lot assignment to a material control system for physical movement of the lot.
6. (Withdrawn) The method of claim 1, further comprising:
moving at least one remotely located lot to assigned stocker.
7. (Withdrawn) The method of claim 1, wherein stocker state includes information on at least a selected one of an individual stocker's utilization, availability, storage capacity, and proximity to process machine.
8. (Withdrawn) The method of claim 7 wherein stocker availability is based on at least a selected one of real-time and periodic stocker machine status information.
9. (Withdrawn) The method of claim 7, wherein stocker state at least includes information on stocker availability, and assigning at least one of the remotely located lots to a selected one of up to a plurality of stockers includes

determining available stockers by deselecting stockers which are at least a selected one of off-line and nonfunctioning, from up to a plurality of stockers; and
assigning at least one of the remotely located lots to a selected one of the available stockers.

10. (Withdrawn) The method of claim 7, wherein stocker state at least includes information on stocker availability and proximity to process machine, and assigning at least one of the remotely located lots to a selected one of up to a plurality of stockers includes

determining available stockers by deselecting stockers which are at least a selected one of off-line and non-functioning from up to a plurality of stockers;

determining local available stockers by selecting available stockers which are proximally located to process machine; and

assigning at least one of the remotely located lots to a selected one of the local available stockers.

11. (Withdrawn) The method of claim 7, wherein stocker state at least includes information on stocker availability, proximity to process machine, and utilization, and assigning at least one of the remotely located lots to a selected one of up to a plurality of stockers includes

determining available stockers by deselecting stockers which are at least a selected one of off-line and nonfunctioning from up to a plurality of stockers;

determining local available stockers by selecting available stockers which are proximally located to process machine;

determining valid local stockers by selecting local available stockers with a utilization which does not exceed a predetermined utilization limit; and

assigning at least one of the remotely located lots to a selected one of the valid local stockers.

12. (Withdrawn) The method of claim 11, further comprising:

assigning at least one of a selected plurality of lots stored in a stocker with a utilization which exceeds a predetermined utilization limit, to a selected one of valid local stockers.

13. (Withdrawn) The method of claim 11, wherein the stocker utilization is determined by dividing a selected one of a number of lots stored in the stocker, and a sum of a number of lots stored in the stocker and a number of lots assigned to the stocker, by the lot storage capacity of the stocker.

14. (Withdrawn) The method of claim 11, wherein assignments of up to a plurality of remotely stored lots are substantially uniformly distributed among a plurality of the valid local stockers.

15. (Withdrawn) The method of claim 11, further comprising:

iteratively assigning at least a selected one of a plurality of remotely located lots

to a selected one of the valid local stockers, until substantially all of the remotely stored lots have been assigned.

16. (Withdrawn) The method of claim 11, further comprising:
iteratively assigning at least a selected one of a plurality of remotely located lots to the least utilized of the valid local stockers, until substantially all of the remotely stored lots have been assigned; and
periodically reevaluating the utilization of the valid stockers.

17.-26. (Cancelled)

27. (Withdrawn) A method, comprising:
receiving input, with an engine, comprising an identification of a lot to be processed by a process machine, the lot being located at a remote stocker;
determining, with the engine, a local stocker to which to move the lot;
moving the lot from the remote stocker to the local stocker; and
moving the lot from the local stocker to the process machine after moving the lot from the remote stocker to the local stocker.

28. (Withdrawn) The method of claim 27, wherein the local stocker to which to move the lot is determined based on at least one of a stocker's utilization, availability, storage capacity, and proximity to process machine.

29. (Withdrawn) The method of claim 27, wherein determining a local stocker to which to move the lot comprises:
determining available stockers by deselecting stockers which are at least a selected one of off-line and nonfunctioning, from up to a plurality of stockers; and
determining local available stockers by selecting available stockers which are proximally located to the process machine.

30. (Currently amended) A system comprising:
a user interface configured to receive an identification of a lot to be processed on a process machine;
a plurality of stockers, each having a respective closeness to the process machine that is within a first-predetermined threshold closeness to the process machine; and
an engine coupled to the user interface and configured
to receive closeness information on each of the plurality of stockers,
to determine if the lot is located outside of the first-predetermined threshold closeness, and
to generate staging instructions to move the lot to a selected one of the plurality of stockers based at least in part on said determining if the lot is located outside of the first closeness, received closeness information and relative utilization of the plurality of stockers.

31. (Previously presented) The system of claim 30, wherein the lot is one of a plurality of lots to be processed on the process machine and the user interface is further configured to receive an identification of the plurality of lots, the system further comprising:

- a control system; and
- a queuer, communicatively coupled to the control system, to validate a list of the plurality of lots received by the user interface, record the list in a database, and communicate the validity of the list and presence of the list in the database to the control system.

32. (Previously presented) The system of claim 31, wherein the control system is further capable of communicating to the user interface a validity of the list and presence of the list in the database.

33. (Cancelled)

34. (Previously presented) The system of claim 30, wherein the engine is further configured to periodically update a location of the lot prior to the lot being processed and to generate further staging instructions based at least in part on one or more of said periodical updates.

35. (Currently amended) A machine-accessible medium comprising a plurality of instructions, which when executed cause an engine to
receive input over a first data connection, input including identification of a lot to be processed by a process machine;

- receive closeness information on closeness of each of a plurality of stockers to the process machine, the relative closeness of each of the plurality of stockers being within a predetermined threshold closeness to the process machine;

- determine, upon receipt of said input, if the lot is located outside of a first the predetermined threshold closeness to the process machine; and

- generate staging instructions to move the lot to a selected one of a the plurality of stockers within the first closeness to the process machine-based at least in part on said determining if the lot is located outside of the first closeness, received closeness information and relative utilization of the plurality of stockers.

36. (Previously presented) The machine-accessible medium of claim 35, wherein the plurality of instructions, when executed further cause the engine to

- periodically update a location of the lot prior to the lot being processed and to generate further staging instructions based at least in part on one or more of said periodical updates.

37. (Cancelled)

38. (New) The machine-accessible medium of claim 35, wherein the lot is one of a plurality of lots to be processed on the process machine and the plurality of instructions,

when executed further cause the engine to
determine which of the plurality of lots are located outside the predetermined
threshold closeness; and
generate staging instructions to move any of the plurality of lots determined to be
outside of the predetermined threshold closeness to one or more of the plurality of
stockers.

39. (New) The machine-accessible medium of claim 38, wherein the plurality of
instructions, when executed further cause the engine to
generate staging instructions to substantially uniformly distribute any of the
plurality of lots determined to be outside of the predetermined threshold closeness over
at least a subset of the plurality of stockers.

40. (New) The system of claim 30, wherein the lot is one of a plurality of lots to be
processed on the process machine and the engine is further configured
to determine which of the plurality of lots are located outside the predetermined
threshold closeness; and
to generate staging instructions to move any of the plurality of lots determined to
be outside of the predetermined threshold closeness to one or more of the plurality of
stockers.

41. (New) The system of claim 40, wherein the engine is further configured to
generate staging instructions to substantially uniformly distribute any of the
plurality of lots determined to be outside of the predetermined threshold closeness over
at least a subset of the plurality of stockers.